

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=9; day=16; hr=13; min=53; sec=41; ms=601; ]

=====

Application No: 10539992 Version No: 4.0

**Input Set:**

**Output Set:**

**Started:** 2009-08-31 20:08:25.390  
**Finished:** 2009-08-31 20:08:28.859  
**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 469 ms  
**Total Warnings:** 38  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 119  
**Actual SeqID Count:** 119

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (49)
W 213	Artificial or Unknown found in <213> in SEQ ID (50)
W 213	Artificial or Unknown found in <213> in SEQ ID (51)
W 213	Artificial or Unknown found in <213> in SEQ ID (52)
W 213	Artificial or Unknown found in <213> in SEQ ID (53)
W 213	Artificial or Unknown found in <213> in SEQ ID (54)
W 213	Artificial or Unknown found in <213> in SEQ ID (55)
W 213	Artificial or Unknown found in <213> in SEQ ID (56)
W 213	Artificial or Unknown found in <213> in SEQ ID (57)
W 213	Artificial or Unknown found in <213> in SEQ ID (58)
W 213	Artificial or Unknown found in <213> in SEQ ID (59)
W 213	Artificial or Unknown found in <213> in SEQ ID (63)
W 213	Artificial or Unknown found in <213> in SEQ ID (64)
W 213	Artificial or Unknown found in <213> in SEQ ID (65)
W 213	Artificial or Unknown found in <213> in SEQ ID (66)
W 213	Artificial or Unknown found in <213> in SEQ ID (67)
W 213	Artificial or Unknown found in <213> in SEQ ID (68)
W 213	Artificial or Unknown found in <213> in SEQ ID (69)
W 213	Artificial or Unknown found in <213> in SEQ ID (70)
W 213	Artificial or Unknown found in <213> in SEQ ID (71)

**Input Set:**

**Output Set:**

**Started:** 2009-08-31 20:08:25.390  
**Finished:** 2009-08-31 20:08:28.859  
**Elapsed:** 0 hr(s) 0 min(s) 3 sec(s) 469 ms  
**Total Warnings:** 38  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 119  
**Actual SeqID Count:** 119

Error code      Error Description

This error has occurred more than 20 times, will not be displayed



Leu	Gln	Pro	His	Leu	Met	Leu	Gln	Gln	Gln	Met	Leu	Ser	Pro	Cys	Gly
35						40					45				
Glu	Phe	Val	Arg	Gln	Gln	Cys	Ser	Thr	Val	Ala	Thr	Pro	Phe	Phe	Gln
50						55					60				
Ser	Pro	Val	Phe	Gln	Leu	Arg	Asn	Cys	Gln	Val	Met	Gln	Gln	Gln	Cys
65						70					75				80
Cys	Gln	Gln	Leu	Arg	Met	Ile	Ala	Gln	Gln	Ser	His	Cys	Gln	Ala	Ile
						85					90				95
Ser	Ser	Val	Gln	Ala	Ile	Val	Gln	Gln	Leu	Arg	Leu	Gln	Gln	Phe	Ala
						100					105				110
Ser	Val	Tyr	Phe	Asp	Gln	Ser	Gln	Ala	Gln	Ala	Gln	Ala	Met	Leu	Ala
						115					120				125
Leu	Asn	Met	Pro	Ser	Ile	Cys	Gly	Ile	Tyr	Pro	Ser	Tyr	Asn	Thr	Ala
						130					135				140
Pro	Cys	Ser	Ile	Pro	Thr	Val	Gly	Gly	Ile	Trp	Tyr				
145						150					155				

```
<210> 3
<211> 601
<212> DNA
<213> Oryza sativa
```

<220>  
<223> 13kD prolamin RM1

```
<400> 3
aggaaaggata gtagttagaaat cctacaaaaaa tgaagatcat ttcgttattt gctctcccttg 60
ctattgttgc atgcaacgct tctgcacggc ttgatgtct tagtcaaagt tatagacaat 120
atcaactaca atcgcatttc ctgctacagc aacaagtgc cagcccatgc agtgagttcg 180
taaggcaaca gcatagcata gtggcaaccc ccttctggca accagctacg tttcaattga 240
taaacaacca agtcatgcag caacagtgtt gccaacagct caggctggta gcgcaacaat 300
ctcaactacca ggccatttagt agcggttcaagg cgattgtgca gcaactacag ctgcagcagg 360
tcgggtgtgt ctactttgtt cagactcaag ctcaagctca agctttgtcg gccttaaact 420
tgccatccat atgtggtatac tatcctaact actacattgc tccgaggagc attcccacccg 480
ttgggtggtgt ctggtaactga attgttaatag tataatggtt caaatgttaa aaataaagtc 540
atgcatcatc atgcgtgaca gttgaaactt gatgtcatat aaatctaaat aaactcgtgc 600
c 601
```

<210> 4  
<211> 156  
<212> PRT  
<213> *Oryza sativa*

<220>  
<223> 13kD prolamin RM1

```

<400> 4
Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Val Ala Cys Asn
1           5           10           15
Ala Ser Ala Arg Phe Asp Ala Leu Ser Gln Ser Tyr Arg Gln Tyr Gln
           20           25           30
Leu Gln Ser His Leu Leu Leu Gln Gln Gln Val Leu Ser Pro Cys Ser
           35           40           45
Glu Phe Val Arg Gln Gln His Ser Ile Val Ala Thr Pro Phe Trp Gln
           50           55           60
Pro Ala Thr Phe Gln Leu Ile Asn Asn Gln Val Met Gln Gln Gln Cys
65           70           75           80

```

Cys	Gln	Gln	Leu	Arg	Leu	Val	Ala	Gln	Gln	Ser	His	Tyr	Gln	Ala	Ile
								85							95
Ser	Ser	Val	Gln	Ala	Ile	Val	Gln	Gln	Leu	Gln	Leu	Gln	Gln	Val	Gly
								100							110
Val	Val	Tyr	Phe	Asp	Gln	Thr	Gln	Ala	Gln	Ala	Gln	Ala	Leu	Leu	Ala
								115							125
Leu	Asn	Leu	Pro	Ser	Ile	Cys	Gly	Ile	Tyr	Pro	Asn	Tyr	Tyr	Ile	Ala
								130							140
Pro	Arg	Ser	Ile	Pro	Thr	Val	Gly	Gly	Val	Trp	Tyr				
								145							155
								150							

<210> 5  
<211> 766  
<212> DNA  
<213> *Oryza sativa*

<220>

<400> 5  
ttgcttcc ccgtccccc cgctgggct cttggcgcc cgttccggc gccccctccc 60  
tcctccctcc ggggtacccg gcccgtcac tcctctgctg gaccccccggc cgccccggc 120  
cgcgccccat cccgggtgcgc gaccatcgt tcacacagt caagcattat acagaaaaat 180  
agaaagatct agtgtcccgc agcaatgaag atcatttcg tctttgctct ccttgctatt 240  
gctgcatgca ggcctctgcc gagtttgatg ttttaggtc aaagttataq gcaatatcag 300  
ctgcagtcgc ctgtccctgct acagcaacag gtgcttagcc catataatga gttcgtaagg 360  
cagcagtgatg gcatagcggc aagcccccttc ttgcaatcag ctgcatttca actgagaaat 420  
aaccgaatct ggcaacatca ggctgggtggc caacaatctc gctatcagga cattaacatt 480  
gttcaggccca tagcgtacga gctacaactc cagcaatttg gtgatctcta ctttgatcg 540  
aatcaggctc aagctcaagc tctattggct tttaacgtgc catctagata tggtatctac 600  
ccttaggtact atggtgtcacc cagtagcattt accacccttg gcggtgtctt gtaatgtgtt 660  
ttAACAGTAT agtggttcgg aagttaaaaa taagctcaga tatcatcata tgtgacatgt 720  
gaaactttgg gtgatataaa tagaaataaa gttgccttc atattt 766

<210> 6  
<211> 149  
<212> PRT  
<213> *Oryza sativa*

<220>  
<223> 13kD prolamin

```

<400> 6
Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Ala Ala Cys Arg
1           5           10           15
Pro Leu Pro Ser Leu Met Phe Leu Gly Gln Ser Tyr Arg Gln Tyr Gln
20          25           30
Leu Gln Ser Pro Val Leu Leu Gln Gln Gln Val Leu Ser Pro Tyr Asn
35          40           45
Glu Phe Val Arg Gln Gln Tyr Gly Ile Ala Ala Ser Pro Phe Leu Gln
50          55           60
Ser Ala Ala Phe Gln Leu Arg Asn Asn Gln Val Trp Gln His Gln Ala
65          70           75           80
Gly Gly Gln Gln Ser Arg Tyr Gln Asp Ile Asn Ile Val Gln Ala Ile
85          90           95
Ala Tyr Glu Leu Gln Leu Gln Gln Phe Gly Asp Leu Tyr Phe Asp Arg
100         105          110

```

Asn Gln Ala Gln Ala Gln Ala Leu Leu Ala Phe Asn Val Pro Ser Arg  
115 120 125  
Tyr Gly Ile Tyr Pro Arg Tyr Tyr Gly Ala Pro Ser Thr Ile Thr Thr  
130 135 140  
Leu Gly Gly Val Leu  
145

<210> 7  
<211> 717  
<212> DNA  
<213> Oryza sativa

<220>  
<223> 13kD prolamin

<400> 7  
gttccggggcg cccccctccc tcctccctcc gcggtaacccg gccgcctcac tcctctgctg 60  
gaccccccggc cgccccggc cgcgccccat cccgggtgcgc gccccatcgt tcacacagtt 120  
caagtattat acagaaaaat agaaaagatct agtgtccgcg agcaatgaag atcatttcg 180  
tctttgtctt ccttgctatt gctgcatgca gcgcctctgc gcagtttgc 240  
aaagttatacg gcaatatcg ctgcagtcgc ctgtccctgc acagcaacag gtgcttagcc 300  
catataatga gttcgttaagg cagcagttatgc gcatagccgc aagcccttc ttgcaatcg 360  
ctgcatttca actgagaaac aaccaagtct ggcaacagct cgccgtggc gcgcaacaat 420  
ctcaactatca ggacattaac attgttcagg ccatagcgca gcagctacaa ctccagcagt 480  
ttggtgatct ctacttgat cggaatctgg ctcaagctca gttggcttt aacgtgccat 540  
ctagatatgg tatctaccct aggtactatgc gtgcacccag taccattacc acccttggcg 600  
gtgtcttcta atgtgtttta acaaggata gttggccgaa agttaaaaat aagctcagat 660  
atcatcatat gtgacatgtg aaactttggg tgatataaat agaaataaaag ttgtctt 717

<210> 8  
<211> 148  
<212> PRT  
<213> Oryza sativa

<220>  
<223> 13kD prolamin

<400> 8  
Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Ala Ala Cys Ser  
1 5 10 15  
Ala Ser Ala Gln Phe Asp Val Leu Gly Gln Ser Tyr Arg Gln Tyr Gln  
20 25 30  
Leu Gln Ser Pro Val Leu Leu Gln Gln Val Leu Ser Pro Tyr Asn  
35 40 45  
Glu Phe Val Arg Gln Gln Tyr Gly Ile Ala Ala Ser Pro Phe Leu Gln  
50 55 60  
Ser Ala Ala Phe Gln Leu Arg Asn Asn Gln Val Trp Gln Gln Leu Ala  
65 70 75 80  
Leu Val Ala Gln Gln Ser His Tyr Gln Asp Ile Asn Ile Val Gln Ala  
85 90 95  
Ile Ala Gln Gln Leu Gln Leu Gln Phe Gly Asp Leu Tyr Phe Asp  
100 105 110  
Arg Asn Leu Ala Gln Ala Gln Leu Ala Phe Asn Val Pro Ser Arg Tyr  
115 120 125  
Gly Ile Tyr Pro Arg Tyr Tyr Gly Ala Pro Ser Thr Ile Thr Thr Leu  
130 135 140  
Gly Gly Val Leu

<210> 9  
<211> 650  
<212> DNA  
<213> *Oryza sativa*

<220>  
<223> 13kD prolamin

<400> 9  
cttccccgtc gggccccggcc cggggccctcg cctatccgcc tcctcccccc gcggccctca 60  
ccactcccaa cccagctccc ttctccacc taccggcccc atccttctca caactcaaac 120  
attacagcga aagcataaca actagaatcc taccacaatg aagatcattt tcttctttgc 180  
tctcttgc gaagctgcat gttagcgcctc tgcgagttt gatgctgtta ctcaagttt 240  
caggcaatat cagctgcagc aacagatgt tagcccatgc ggtgagttcg taaggcagca 300  
gtgcagcaca gtggcaaccc ctttcttcca atcaccgggtt tttcaactga gaaaactgcca 360  
agtcatgcag cagcagtgct gccaacagct caggatgatc ggcacacagt ctcaactgcca 420  
ggccatttagc agtgttcagg cgattgtgca gcagctacag ctacaacagt tttctggcgt 480  
ctacttcgtat caggctcaag ctcaagccca agctatgttg ggctaaact tgccgtcaat 540  
atgcggtatc taccgaagct acaacactgt ccctgagatt cctaccgtcg gtggtatctg 600  
gtactgattt acgagataga gacagggaaa taagcatgtt catcggggct 650

<210> 10  
<211> 149  
<212> PRT  
<213> *Oryza sativa*

<220>  
<223> 13kD prolamin

```

<400> 10
Met Lys Ile Ile Phe Phe Phe Ala Leu Leu Ala Glu Ala Ala Cys Ser
1 5 10 15
Ala Ser Ala Gln Phe Asp Ala Val Thr Gln Val Tyr Arg Gln Tyr Gln
20 25 30
Leu Gln Gln Gln Met Leu Ser Pro Cys Gly Glu Phe Val Arg Gln Gln
35 40 45
Cys Ser Thr Val Ala Thr Pro Phe Phe Gln Ser Pro Val Phe Gln Leu
50 55 60
Arg Asn Cys Gln Val Met Gln Gln Gln Cys Cys Gln Gln Leu Arg Met
65 70 75 80
Ile Ala Gln Gln Ser His Cys Gln Ala Ile Ser Ser Val Gln Ala Ile
85 90 95
Val Gln Gln Leu Gln Leu Gln Gln Phe Ser Gly Val Tyr Phe Asp Gln
100 105 110
Ala Gln Ala Gln Ala Gln Ala Met Leu Gly Leu Asn Leu Pro Ser Ile
115 120 125
Cys Gly Ile Tyr Pro Ser Tyr Asn Thr Val Pro Glu Ile Pro Thr Val
130 135 140
Gly Gly Ile Trp Tyr
145

```

```
<210> 11
<211> 629
<212> DNA
<213> Oryza sativa
```

<220>

<223> 13kD prolamин

<400> 11

cgttgaagca tagtagtaga atcctacaaa aatgaagatc	atttcgatc ttgctctcct	60
tgctattgtt gcatgcaacg cttctgcacg gtttgatgct	cttagtcaaa gttatagaca	120
atatacaacta caatcgcatc tccagctaca gcaacaagtg	ctcagcccat gcagtggat	180
cgttaaggcaa cagcatagca tagtggcaac ccccttctgg	caaccagcta cgtttcaatt	240
gataaaacaac caagtcatgc agcaacagtg ttgccaacag	ctcaggctgg tagcgcaaca	300
atctcaactac caggcattt gtagcgatgtc ggcgatgtg	cagcaactac agctgcagca	360
ggtcgggtgtt gtctactttg atcagactca agctcaagct	caagcttgc tggccttaaa	420
cttgccatcc atatgtggta tctatcctaa ctactacatt	gctccgagga gcattccac	480
cgttgggtgtg tctggactg aattgtataata gtataatgg	tcaaatgtta aaaataaagt	540
catgcatcat catgcgtgac agttgaaact ttagtgcata	taaatctaaa taaaatcacc	600
tatattaaata gaaaaaaaaaaaaaaaaaaaaaaa		629

<210> 12

<211> 158

<212> PRT

<213> Oryza sativa

<220>

<223> 13kD prolamин

<400> 12

Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Val Ala Cys Asn				
1	5	10	15	
Ala Ser Ala Arg Phe Asp Ala Leu Ser Gln Ser Tyr Arg Gln Tyr Gln				
	20	25	30	
Leu Gln Ser His Leu Gln Leu Gln Gln Gln Val Leu Ser Pro Cys Ser				
	35	40	45	
Glu Phe Val Arg Gln Gln His Ser Ile Val Ala Thr Pro Phe Trp Gln				
	50	55	60	
Pro Ala Thr Phe Gln Leu Ile Asn Asn Gln Val Met Gln Gln Gln Cys				
	65	70	75	80
Cys Gln Gln Leu Arg Leu Val Ala Gln Gln Ser His Tyr Gln Ala Ile				
	85	90	95	
Ser Ser Val Gln Ala Ile Val Gln Gln Leu Gln Leu Gln Gln Val Gly				
	100	105	110	
Val Val Tyr Phe Asp Gln Thr Gln Ala Gln Ala Gln Ala Leu Leu Ala				
	115	120	125	
Leu Asn Leu Pro Ser Ile Cys Gly Ile Tyr Pro Asn Tyr Tyr Ile Ala				
	130	135	140	
Pro Arg Ser Ile Pro Thr Val Gly Val Ser Gly Thr Glu Leu				
	145	150	155	

<210> 13

<211> 603

<212> DNA

<213> Oryza sativa

<220>

<223> 13kD prolamин

<400> 13

gaagcatagt agtagaatcc aacaacaatg aagatcattt tcgtatttgc tctccttgc	60
--	----

attgttgcat gcaatcgctc tgcgcggtt gatcctctta gtcaaaggta taggcaatat 120  
caactacagt cgcatctcct actacagcaa caagtgtca gcccgtgcag tgagttcgta 180  
aggcaacagt atagcatagt ggcaacccccc ttctggcaac cagctacgtt tcaattgata 240  
aacaaccaag tcatgcagca gcagtgttgc caacagctca ggctggtagc acaacaatct 300  
caactaccagg ccattagtagt tggtaagcg attgtgcaac agtacaaact gcagcaattt 360  
agtgggtgtct actttgatca gactcaagct caagccaaa ctctgttgac cttcaacttg 420  
ccatccatat gtggtatcta ccctaactac tatagtgtc ccaggagcat tgccactgtt 480  
ggtgggtgtct ggtactgaat tggtaacaata taatagttcg tatgttaaaa ataaagtc 540  
acatcatcat gtgtgactgt tgaaacttag ggtcatataa atctaaataa aatcatctta 600  
cct 603

<210> 14  
<211> 156  
<212> PRT  
<213> Oryza sativa

<220>  
<223> 13kD prolamin

<400> 14  
Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Val Ala Cys Asn  
1 5 10 15  
Arg Ser Ala Arg Phe Asp Pro Leu Ser Gln Ser Tyr Arg Gln Tyr Gln  
20 25 30  
Leu Gln Ser His Leu Leu Leu Gln Gln Gln Val Leu Ser Pro Cys Ser  
35 40 45  
Glu Phe Val Arg Gln Gln Tyr Ser Ile Val Ala Thr Pro Phe Trp Gln  
50 55 60  
Pro Ala Thr Phe Gln Leu Ile Asn Asn Gln Val Met Gln Gln Gln Cys  
65 70 75 80  
Cys Gln Gln Leu Arg Leu Val Ala Gln Gln Ser His Tyr Gln Ala Ile  
85 90 95  
Ser Ile Val Gln Ala Ile Val Gln Gln Leu Gln Leu Gln Gln Phe Ser  
100 105 110  
Gly Val Tyr Phe Asp Gln Thr Gln Ala Gln Ala Gln Thr Leu Leu Thr  
115 120 125  
Phe Asn Leu Pro Ser Ile Cys Gly Ile Tyr Pro Asn Tyr Tyr Ser Ala  
130 135 140  
Pro Arg Ser Ile Ala Thr Val Gly Gly Val Trp Tyr  
145 150 155

<210> 15  
<211> 601  
<212> DNA  
<213> Oryza sativa

<220>  
<223> 13kD prolamin

<400> 15  
attataacaac aaaaatttaa aagaactagt gtcctgcaac aatgaagatc attttcgtct 60  
ttgctctcct tgctattgct gcatgcagcg ccactgcgc gtttgcgtt ttaggtcaaa 120  
atattaggca atatcaggtg cagtcgcctc tcctgcata gcaacagggtg cttagccat 180  
ataatgaggcgtt cgtaaggcag cagttatagca ttgcggcaag caccttcttg caatcagctg 240  
cgtttcaact gagaacaac caagtcttgc aacagctcag gctggtggcg caacaatctc 300  
actaccaggat cattaacgtt gtccaggcca tagcgcacca gctacacctc cagcagttg 360  
gcaatctcta cattgaccgg aatctggctc aagctcaagc actgttggtt tttaacttgc 420

catctacata tggtatctac ccttggcct atagtgcacc cgatagcatt accacccttg 480  
gcgggtgttt gtactgaatt ttccacaatat tgtagtcgg aagtgaaaat ataagctcag 540  
gtatcatcgt atgtgacatg tgaaaacttga ggtgatataa atagaaataa aattatctt 600  
c 601

<210> 16  
<211> 151  
<212> PRT  
<213> Oryza sativa

<220>  
<223> 13kD prolamin

<400> 16  
Met Lys Ile Ile Phe Val Phe Ala Leu Leu Ala Ile Ala Ala Cys Ser  
1 5 10 15  
Ala Thr Ala Gln Phe Asp Val Leu Gly Gln Asn Ile Arg Gln Tyr Gln  
20 25 30  
Val Gln Ser Pro Leu Leu Leu Gln Gln Gln Val Leu Ser Pro Tyr Asn  
35 40 45  
Glu Phe Val Arg Gln Gln Tyr Ser Ile Ala Ala Ser Thr Phe Leu Gln  
50 55 60  
Ser Ala Ala Phe Gln Leu Arg Asn Asn Gln Val Leu Gln Gln Leu Arg  
65 70 75 80  
Leu Val Ala Gln Gln Ser His Tyr Gln Asp Ile Asn Val Val Gln Ala  
85 90 95  
Ile Ala His Gln Leu His Leu Gln Gln Phe Gly Asn Leu Tyr Ile Asp  
100 105 110  
Arg Asn Leu Ala Gln Ala Gln Ala Leu Leu Ala Phe Asn Leu Pro Ser  
115 120 125  
Thr Tyr Gly Ile Tyr Pro Trp Ser Tyr Ser Ala Pr